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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,082	03/22/2004	Claire B. Bass	16147/09012	1376
22827	7590	12/04/2006	EXAMINER	
DORITY & MANNING, P.A. POST OFFICE BOX 1449 GREENVILLE, SC 29602-1449			SINGH, ARTI R	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 12/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/806,082

Applicant(s)

BASS, CLAIRE B.

Examiner

Ms. Arti Singh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on RCE filed on 09/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 12-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 21-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/06 has been entered.

***Response to Amendment***

2. The Examiner has carefully considered Applicant's previous remarks and the amendment to the claims have been entered. In lieu of the amendments and Applicant's response all previously made rejections are now withdrawn and new art rejections have been applied below.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-11, 21-34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6713131 issued to Blackwood et al in view of USPN 5989660 issued to Moriwaki et al.

5. Blackwood et al disclose methods of coating substrates such as polyamide airbag fabrics with a composition comprising a water continuous emulsion of a curable elastomeric polymer, and aqueous polyurethane dispersion, and an optional cure agent. Coated fabrics

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prepared according to these methods are particularly useful in the construction of automobile protective airbags. The present invention is directed to a method for coating a substrate comprising the steps of: (I) applying a layer on the substrate of a curable composition comprising: (A) a water continuous emulsion comprising a curable elastomeric polymer having a viscosity of 0.5-1,000,000 KPa-s and a glass transition temperature up to 50 degrees C, (B) an aqueous polyurethane dispersion, and optionally (C) a cure agent (II) exposing the layer to air for sufficient time to form a cured coating. The present invention further provides a method for forming a cured second coating of a composition comprising a polyorganosiloxane-based elastomeric material upon the first cured coating. The Examiner is equating component (A) to be equivalent to Applicant's aqueous solution in Claims 1 and 21. This curable elastomeric polymer is described in Columns 3-6, and further state that plasticizers (column 5, lines 9-18), halogenated polymers (column 5, lines 43-60), surfactants (column 7, line 39) and flame retardants (column 9, line 55) may be incorporated into their coating. The coating may be applied by well know techniques in the art such as dipping (column 10, line 43). Blackwood et al teach what is set forth (basically the coating requirements), and do teach the use of at least 420D yarns in their fabric. They fail to teach all the other fabric parameters that are desired by Applicant. Moriwaki et al remedy this.

Moriwaki et al. teach a fabric for use as a base fabric in an airbag comprising a fibrous substrate adhered to a covering layer of thermoplastic synthetic resin (abstract). The fibrous substrate of the fabric in accordance with their invention can be woven, knitted or a nonwoven fabric formed from polyamide fibers (column 2, lines 33-35). The most preferred embodiment of the present patent is a woven plain weave consisting of polyamide or polyester fibers (column 2, lines 50-60). The linear density of the multifilament fibers may be 200 to 500 denier, (column 3, line 8) wherein each individual (mono) filament may have its

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own denier of 0.5 to 7 (column 2, line 64 to column 3 line 7). Additionally, the cover factor of the woven fabric may be 1700 to 2500 (column 3, line 10). The aforesaid fabric is covered with a thermoplastic synthetic resin covering.

A person having ordinary skill in the art at the time the invention was made would have found it obvious to have employed an aqueous dipping solution to apply the coating onto the fabric as shown by Blackwood et al. on the fabric of Moriwaki et al. One would have been motivated to do this improve permeability while still using lower coating weights as suggested in column 2, lines 16-24 of Blackwood et al.

With regard to the claims, which require the limitation of having a higher denier and a smaller thread count, it is the position of the Examiner that that optimizing the number of yarns (thread count) is directly related to the Denier chosen and are result effective variables. The greater the number of yarns per inch directly affects the strength of the woven cloth. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have used 36-46, 33-43 and 15-25 thread counts with 525D, 630D and 840 D, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have optimized the number of thread/yarns, motivated by the desire to obtain a cloth that has high durability and strength, yet is permeable.

6. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6713131 issued to Blackwood et al in view of USPN 5989660 issued to Moriwaki et al. as applied to claims 1-11 and 21-34 and 36 above, and further in view of USPN 4052158 issued to Weil.

7. The combination of Blackwood and Moriwaki meet all of Applicant's limitations except for the flame retardant being specifically sulfur or phosphorous. Weil remedies this. Weil

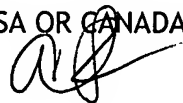
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teaches (see claim 9) that both phosphorus and sulfur-containing co-reactant is added to impart flame retardance to the finish (coating) of a textile. Thus a person having ordinary skill in the art at the time the invention was made would have found it obvious to have used the commonly and well know flame retardants as shown by Weil in the coating of a textile. One would have been motivated to use either or, as there are readily available and cheap.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Arti Singh whose telephone number is 571-272-1483. The examiner can normally be reached on M-T 9-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ms. Arti Singh  
Primary Examiner  
Art Unit 1771

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